



User Manual

Preventive Maintenance Process

(BSNL_PM_UM_01_Preventive_Maintenance_V3.0.doc)







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Overview

Business Process Description Overview

Preventive Maintenance is used to avoid system breakdowns or the breakdown of other objects, which - in addition to the repair costs - often result in much higher costs subsequently owing to production breakdown.

There are many benefits in using preventive maintenance within your company. It is the generic term for inspections, preventive maintenance and planned repairs, for which the time and scope of the work can be planned in advance.

You can use maintenance plans to describe dates and the extent of preventive and inspection maintenance tasks which can be planned for technical objects. You can ensure that your technical objects are always maintained on time and in this way, ensure that they function optimally.

Integration

The *Maintenance Planning* component is integrated with the following components and sub-components of the SAP System:

Plant Maintenance application component

- Maintenance task lists
- · Maintenance orders
- · Maintenance notifications

Materials Management application component

- Service procurement
- Service entry sheets

Quality Management application component

- Inspection characteristics
- · Inspection lots

Generation of Maintenance Call Objects

The system generates maintenance call objects during the scheduling process. The following maintenance call objects are available in the overview:

For rough planning of tasks

PM notification

For detailed planning of tasks

PM order

For detailed planning of tasks and history for the damage processed in the notification:

Maintenance notification and maintenance order

For Quality Management using the link to QM inspection characteristics:

Inspection lots







Purpose

Use this procedure to create Preventive Maintenance Plan

- 1. Single Cycle Plan
- 2. Strategy Plan
- 3. Multiple Counter plan

Trigger

Perform this procedure when there is a need for scheduled maintenance for the technical objects.

Prerequisites

Technical Object (Functional Location / Equipment)
Maintenance Strategy (for Strategy Plan)
Task list
Order type / Notification type

Helpful Hints

For scheduled maintenance at a single frequency; create Single Cycle Plan. For example: maintenance at 3Month only.

For scheduled maintenance at more than one frequency; create Strategy plan. For example: maintenance at 1Month, 3Month, 6Month, 1 Year etc.

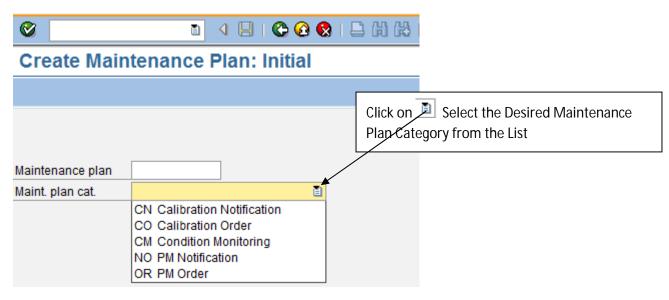
For scheduled maintenance with a combination of time-based and counter-based maintenance; create multiple counter plans for example maintenance at 1Month and/or 200 running hours





Create Single Cycle Plan

SAP Menu	SAP MenuLogisticsPlant MaintenancePreventive Maintenance Maintenance PlanningMaintenance PlansCreateSingle Cycle Plan
T Code	Type IP41 in Command Field and press
User Menu	Select corresponding Node for IP41 / Single Cycle Plan

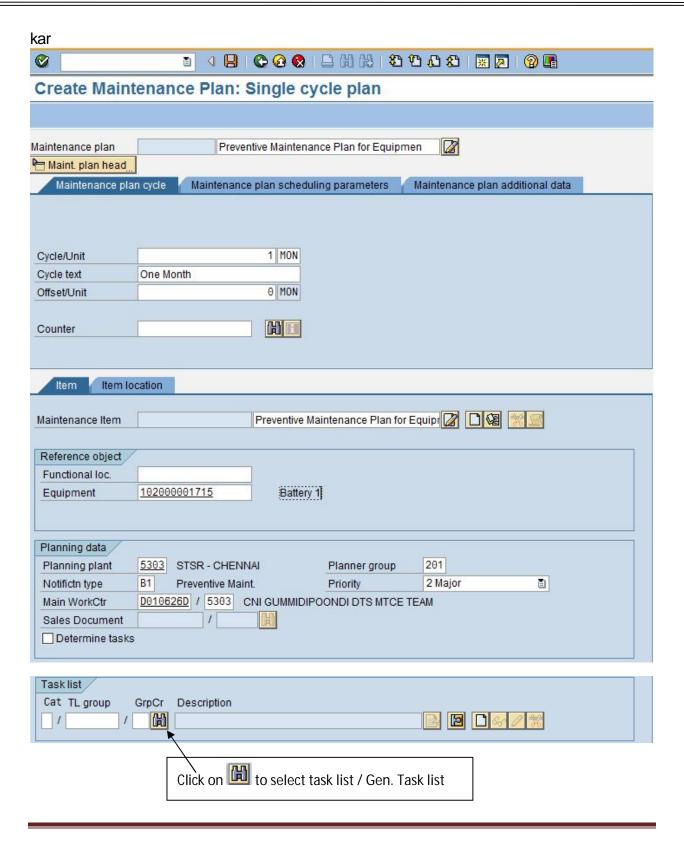














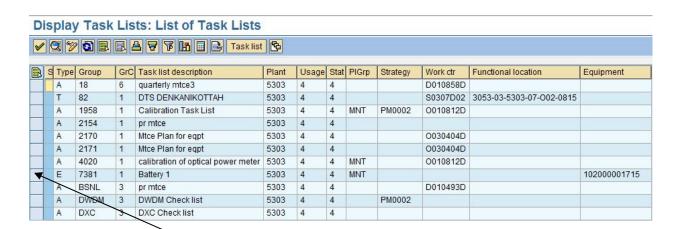


Display Task Lists: Task List Selection			
⊕ 🖪			
Task List Type Click on	or press F8 kev on the k	evboard	
FunctLoc. Task List	☑ Equip.Task List	✓ Gen.Task List	
Task List Selection			
Functional location		6	4
Equipment	102000001715	to	4
Group		to	1 1
Group Counter		to	\$
Key date	13.09.2011		
Class Selection	FunctLoc	Equipment]
U-d-B-t-/			
Header Data		. —	
Usage	[5202]	to	4
Usage Plant	5303	to	
Usage Plant Work center		to to	
Usage Plant Work center Status	5303	to to to	☆
Usage Plant Work center Status Planner group		to to to to	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Usage Plant Work center Status Planner group Maintenance strategy		to to to to to to	0 0 0 0 0 0 0
Usage Plant Work center Status Planner group Maintenance strategy Assembly		to to to to to to to	• • • • • •
Usage Plant Work center Status Planner group Maintenance strategy Assembly Short Text		to	000000000
Usage Plant Work center Status Planner group Maintenance strategy Assembly Short Text System Condition		to t	000000000
Usage Plant Work center Status Planner group Maintenance strategy Assembly Short Text		to	• • • • • •

After execution you will find the list of task lists as below



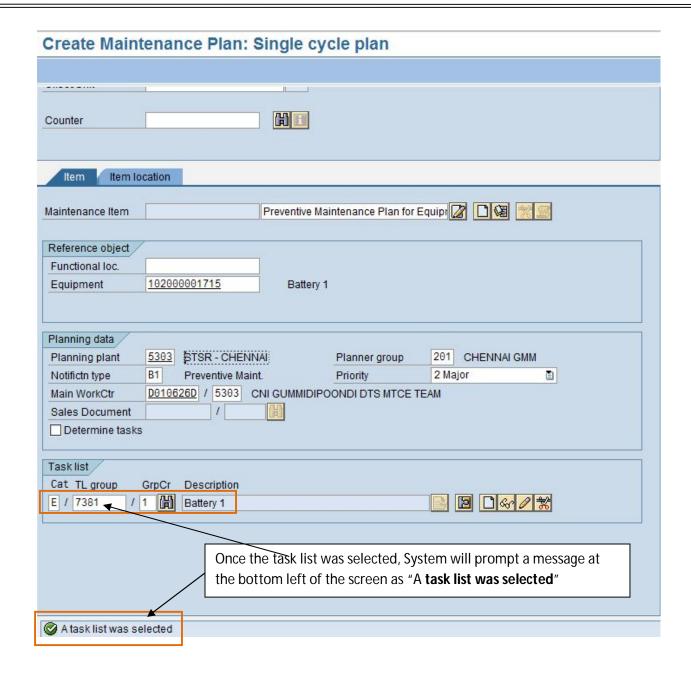




From the above list first select the suitable Task list and click on enter button or Double click on the suitable task list system will automatically update the task list











Click on the "Maintenance plan scheduling parameters" tab and maintain the relevant data

Create Maintenance Plan: Single cycle plan						
Maintenance plan	Preventiv	re Maintenance	Plan for Equip	men		
Maintenance plan cycle	Maintenance pla	an scheduling	parameters	Main	tenance plan additional data	
Date determination Shift Factor Late Compl. Tolerance (+) Shift Factor Early Compl. Tolerance (-)	% % %		period on Requirmnt	100 % 365 DA	Scheduling indicator Time Time - key date Time - factory caldr	
Cycle modification factor Factory calendar	1.00	Start schedu Start of cycle		13.09.	2011	
Item Item location	ln		Annual Diagram		n ra sa	
Maintenance Item		revenuve Main	terrance France	oi Equip		
Reference object Functional loc. Equipment 102000	001715	Battery 1				
Main WorkCtr D01062 Sales Document	STSR - CHENNAI Preventive Maint. 6D / 5303 CNI	Ī	Planner group Priority INDI DTS MTCI		1 CHENNAI GMM Major	<i>y</i>
Sales Document Determine tasks						





Click on the "Maintenance plan additional data" tab and maintain the relevant data

Create Maint	enance Plan: \$	Single cycle	plan		
Maintenance plan Maint, plan head Maintenance plai	İ	ntive Maintenance P		intenance plan addition	nal data
Sort field Authorization Group Maint. plan cat.	5303 STSR - CHE	ENNAI		n the sort field	
Item Item Ioo	cation				
Item Item Ioo	cation	Preventive Mainter	nance Plan for Equ	uipi Z 🗀 😭 📆	
	102000001715	Preventive Mainter	nance Plan for Equ	uipi 🕜 🗋 😪 🐩	
Maintenance Item Reference object Functional loc.	102000001715 5303 STSR - CHENN B1 Preventive Main	Battery 1	anner group ority	201 CHENNAI GMM 2 Major	

Click on to save the created single cycle plan





Create Maintenance Plan: Initial Maintenance plan NO PM Notification Maint, plan cat. System will prompt for a message at the bottom left like The plan number will be system generated internal number Maintenance plan 101000008128 created



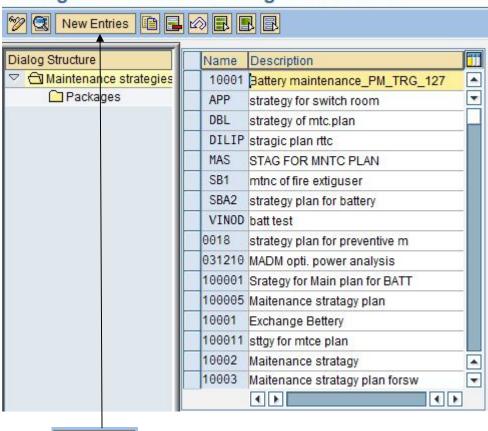


Create Strategy Plan

Create Maintenance Strategy

SAP Menu	SAP MenuLogisticsPlant MaintenancePreventive Maintenance Maintenance PlanningMaintenance StrategiesChange
T Code	Type IP11 in Command Field and press
User Menu	Select corresponding Node for IP11 / Change

Change Maintenance Strategies: Overview

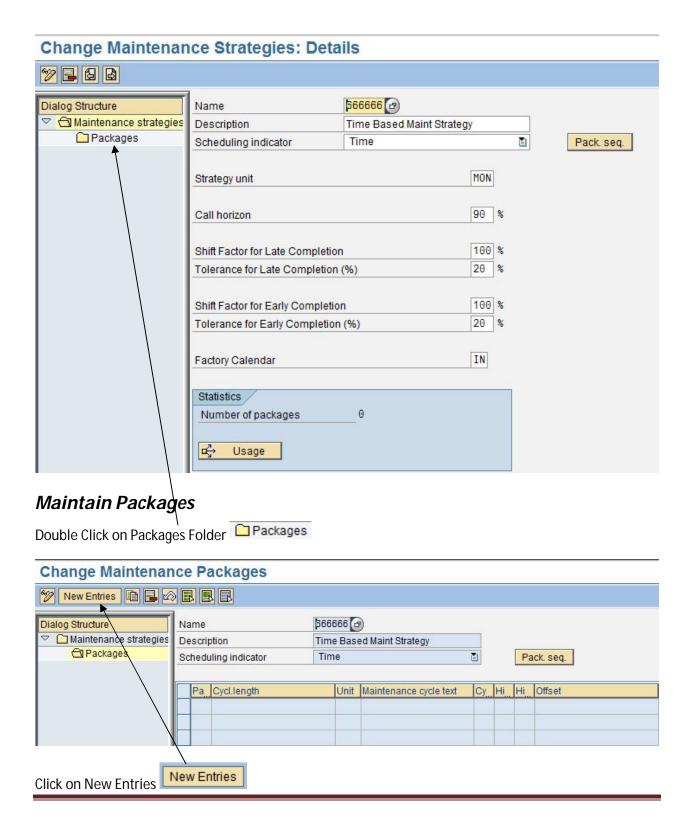


New Entries

Click on

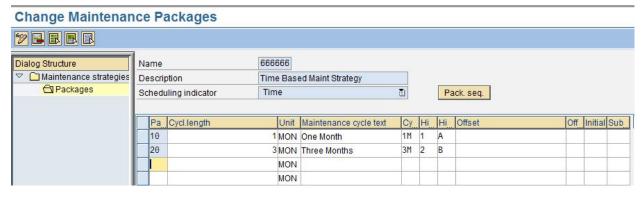












Click on Save

Create Strategy Plan

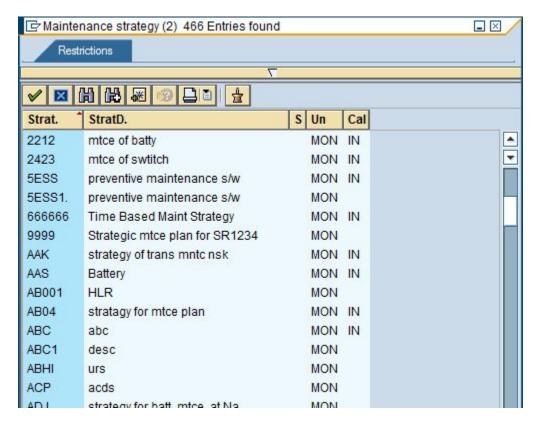
SAP Menu	SAP MenuLogisticsPlant MaintenancePreventive Maintenance Maintenance PlanningMaintenance PlansCreateStrategy Plan
T Code	Type IP42 in Command Field and press
User Menu	Select corresponding Node for IP42 / Change

Create Maintenance Plan: Initial Click on to get the list of possible (Strategies) entries to select the suitable plan Maintenance plan Maint. plan cat. NO PM Notification Strategy

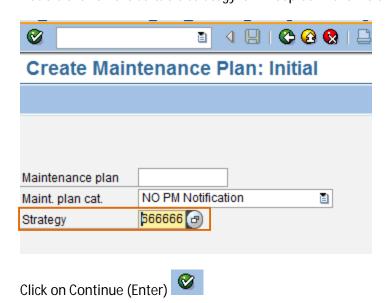








Double click on the suitable strategy it will copied in the Field of Strategy







Create Maintenance Plan: Strategy plan Cycles Cycle Unit Maintenance cycle text Offset 1 MON One Month 0 3 MON Three Months 4 1 4 1 Cycle item 13.09.2011 Item location Preventive Maintenance Plan for Equipr 🛭 🗋 🛂 🐩 Maintenance Item Reference object Functional loc. 102000001715 Equipment Battery 1 Planning data 5303 STSR - CHENNAI 201 CHENNAI GMM Planning plant Planner group 2 Major Notifictn type Preventive Maint. Priority D010626D / 5303 CNI GUMMIDIPOONDI DTS MTCE TEAM Main WorkCtr Sales Document Determine tasks Task list / Cat TL group GrpCr Description E / 7381 / 1 間





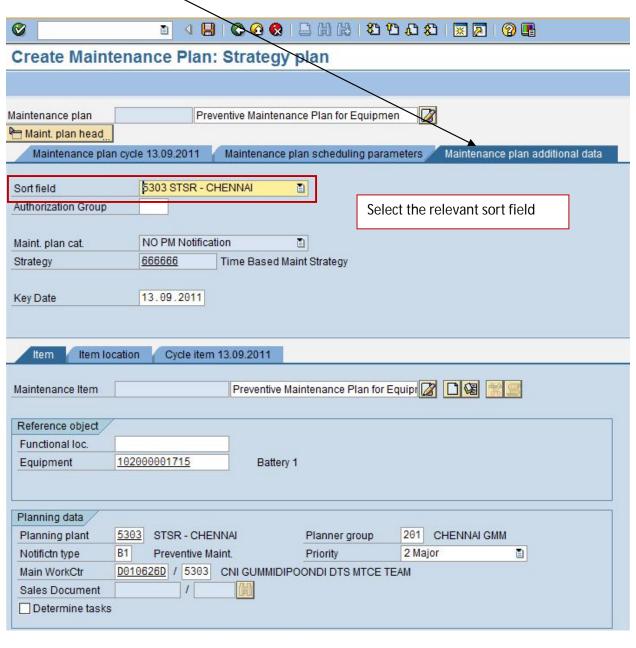
Click on "Maintenance Plan Scheduling Parameters" Tab and maintain the relevant data

Create Maintenance Plant St.	Create Maintenance Plan Strategy plan			
Create Maintenance Flant Strategy plan				
Maintenance plan Preventive	e Mantenance Plan for Equipmen			
Maint. plan head				
Annual Control of the	ntenance plan scheduling paramete	ers Maintenance plan additional data		
Date determination	Call control parameter	Scheduling indicator		
Shift Factor Late Compl. 100 %	Call horizon 90 %	⑥ Time		
Tolerance (+) 20 %	Scheduling period D	OAY O Time - key date		
Shift Factor Early Compl. 100 %	Completion Requirmnt	O Time - factory caldr		
Tolerance (-) 20 %				
Cycle modification factor 1.00	Start scheduling /			
Factory calendar	Start of cycle 13.09	9. 2011 @		
1				
Item Item Iocation Cycle item 13.09	9.2011			
Maintananaa Ham	roughtius Maintananas Dlan for Caui			
Maintenance Item P	reventive Maintenance Plan for Equi			
Reference object				
Functional loc.				
Equipment 102000001715	Battery 1			
	777767			
Planning data				
Planning plant 5303 STSR - CHENNAI	Planner group 2	201 CHENNAI GMM		
Notifictn type B1 Preventive Maint.	Priority 2	2 Major 🖺		
Main WorkCtr <u>D010626D</u> / 5303 CNI	GUMMIDIPOONDI DTS MTCE TEAM	1		
Sales Document /	H			
Determine tasks				





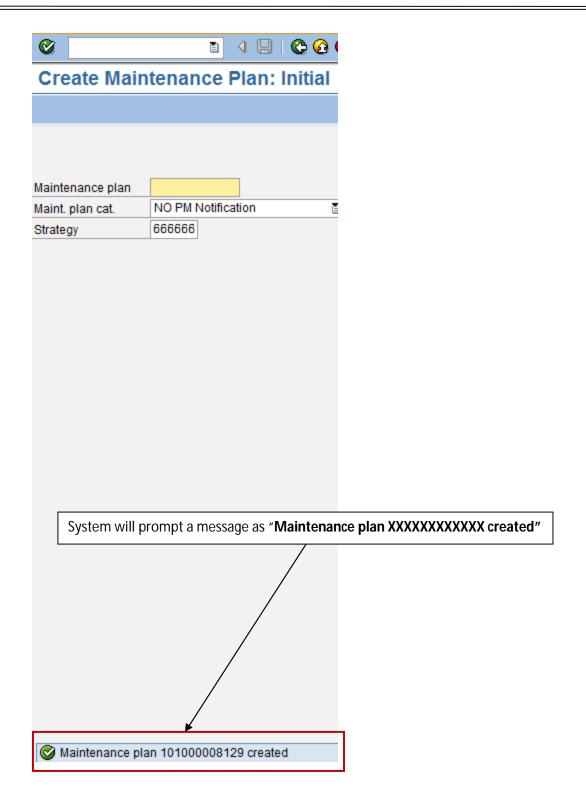
Click on "Maintenance Plan Additional data" Tab and maintain the relevant data



Click on Save



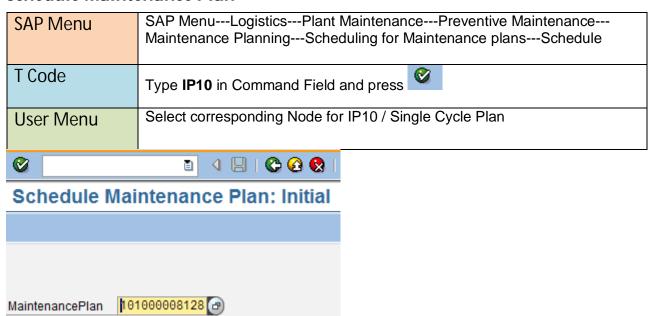




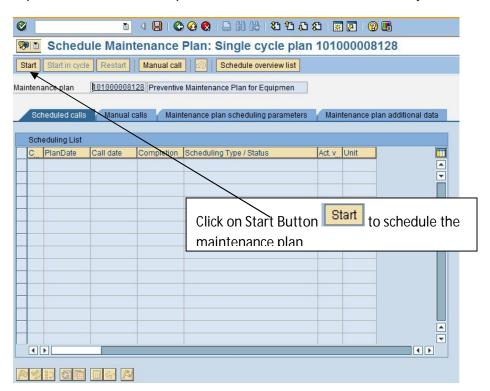




Schedule Maintenance Plan

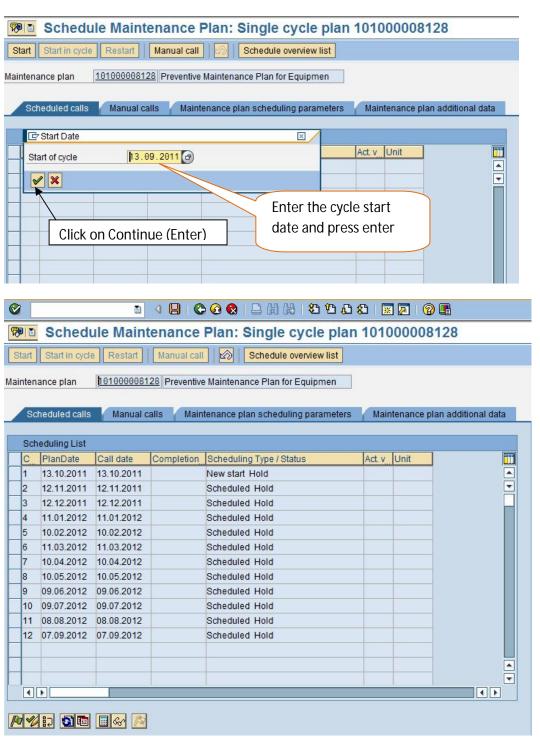


Input the Maintenance plan number and click on enter key









Click on Save





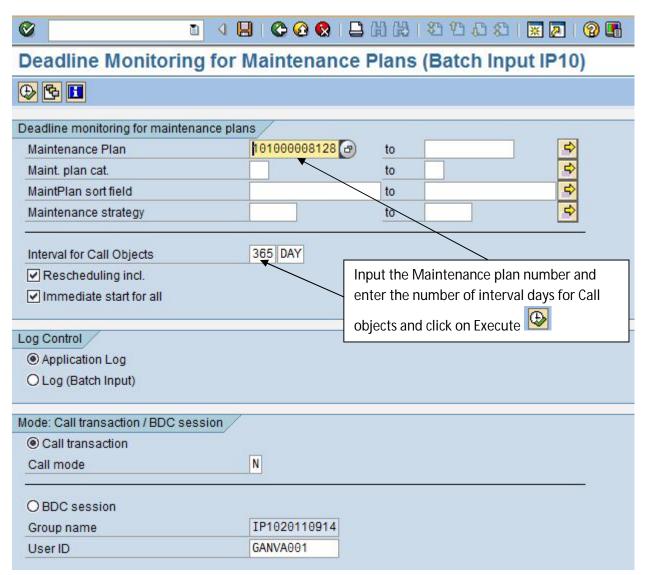
Schedule Maintenance Plan: Initi MaintenancePlan 101000008128 🗗 System will prompt a message that "Maintenance plan XXXXXXX scheduled" Maintenance plan 101000008128 scheduled





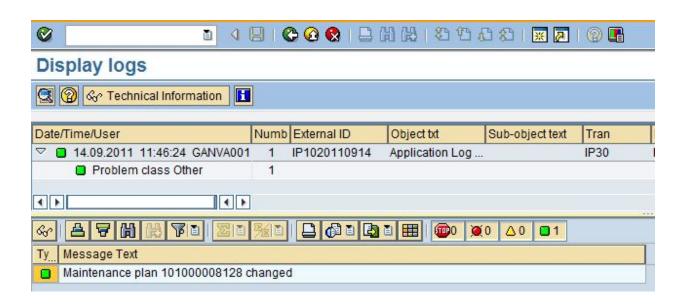
Deadline Monitoring

SAP Menu	SAP MenuLogisticsPlant MaintenancePreventive Maintenance Maintenance PlanningScheduling for Maintenance plansDeadline Monitoring
T Code	Type IP30 in Command Field and press
User Menu	Select corresponding Node for IP30 / Deadline Monitoring









Display list of Equipment for which Scheduled Maintenance is Due

SAP Menu	SAP MenuLogisticsPlant MaintenancePreventive Maintenance Maintenance PlanningScheduling for Maintenance plansScheduling OverviewList Display
T Code	Type IP24 in Command Field and press
User Menu	Select corresponding Node for IP24 / List Display



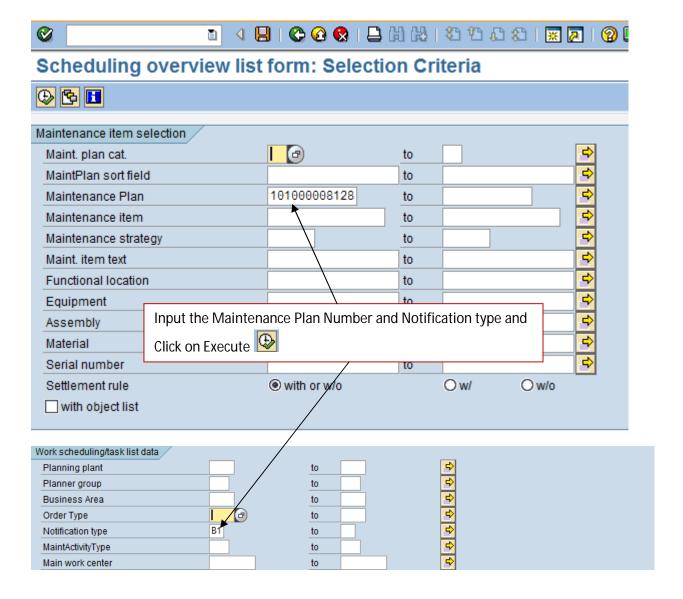






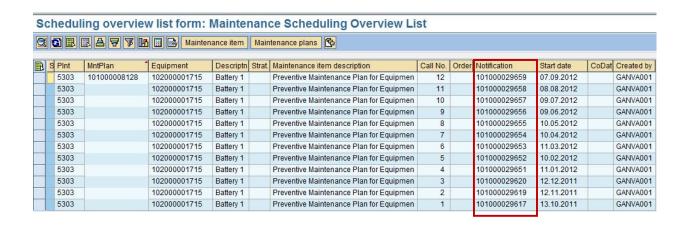
List of Call Objects

SAP Menu	SAP MenuLogisticsPlant MaintenancePreventive Maintenance Maintenance PlanningScheduling for Maintenance plansScheduling OverviewList Display
T Code	Type IP24 in Command Field and press
User Menu	Select corresponding Node for IP24 / List Display



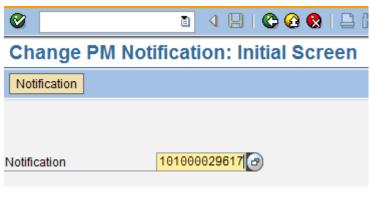






Process Notification

SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing NotificationChange
T Code	Type IW22 in Command Field and press
User Menu	Select corresponding Node for IW22 / Change

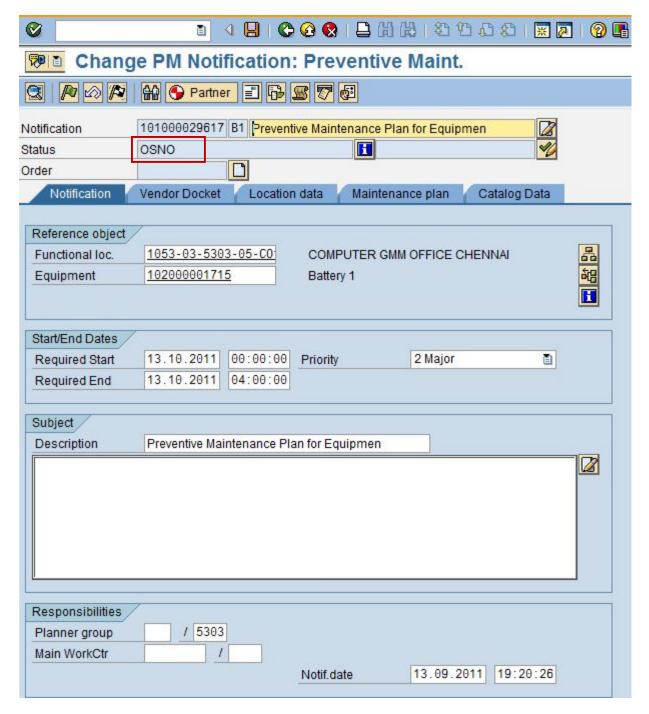


Input the Notification number and click on Enter





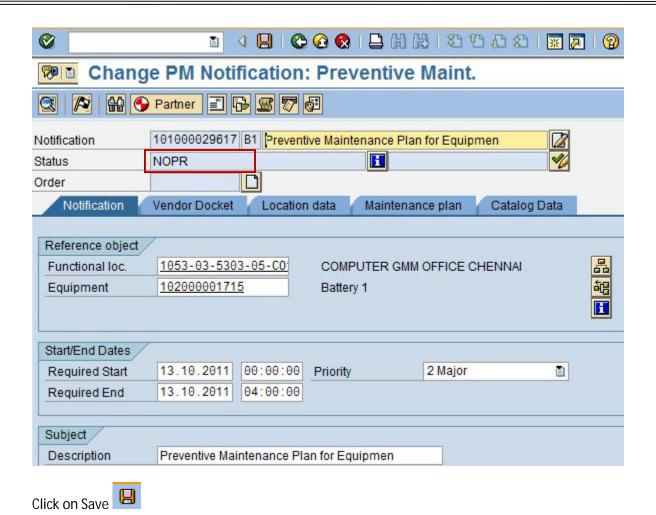




In the above screen the system status is OSNO (Out standing Notification) to change the status from OSNO to NOPR (Notification in Process) click on Release (Green Flag)



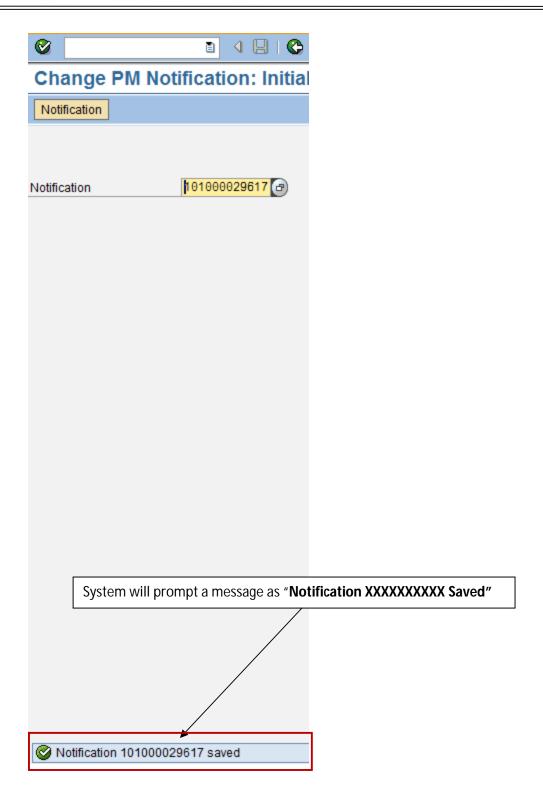




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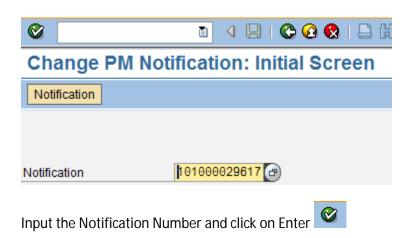


After the above step Decide on the requirement of Maintenance order, based on material to be consumed from stores or need based services to be used.

Follow the below steps to Create the Maintenance order from Notification and for further processing.

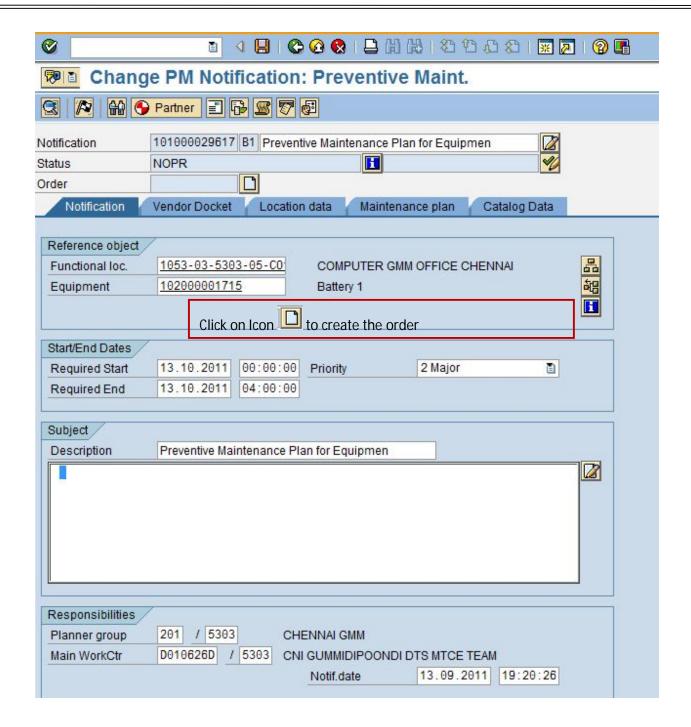
Create Maintenance order from Notification

SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing NotificationChange
T Code	Type IW22 in Command Field and press
User Menu	Select corresponding Node for IW22 / Change





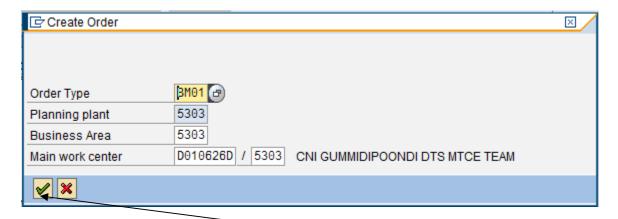




System will prompt for a pop-up window as below

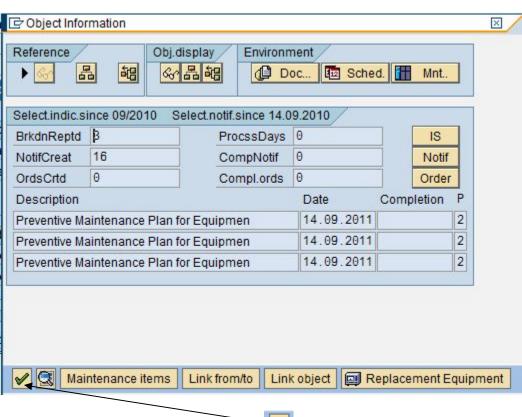






Check all the details and click on Continue

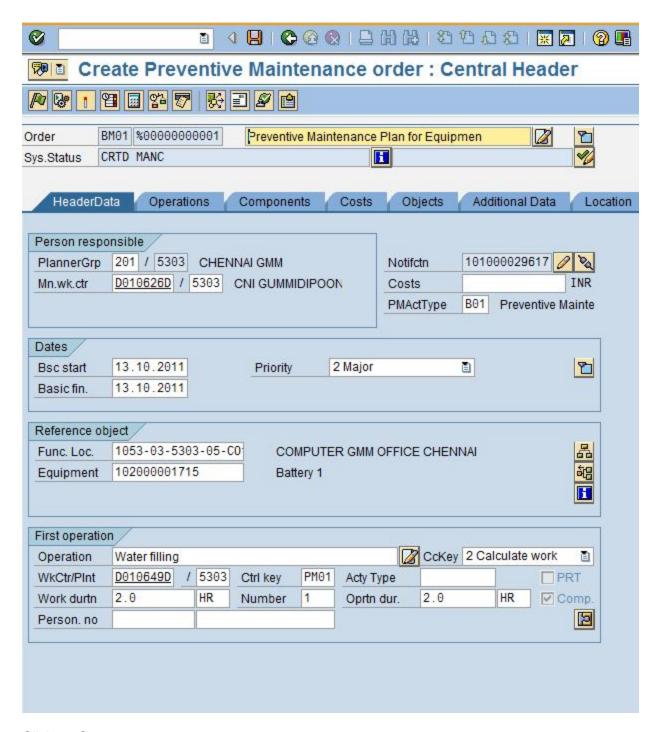
System will prompt for another pop-up window as below



Check the parameters and click on continue



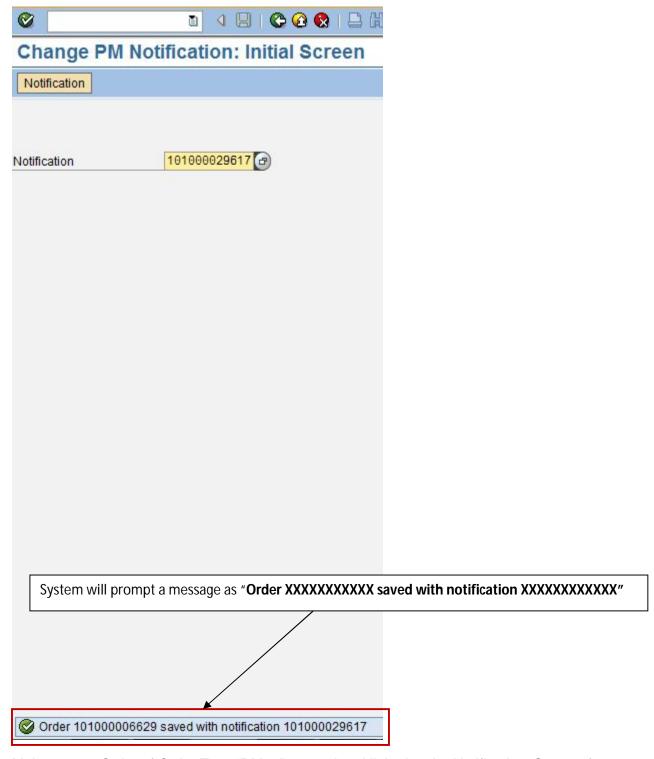




Click on Save





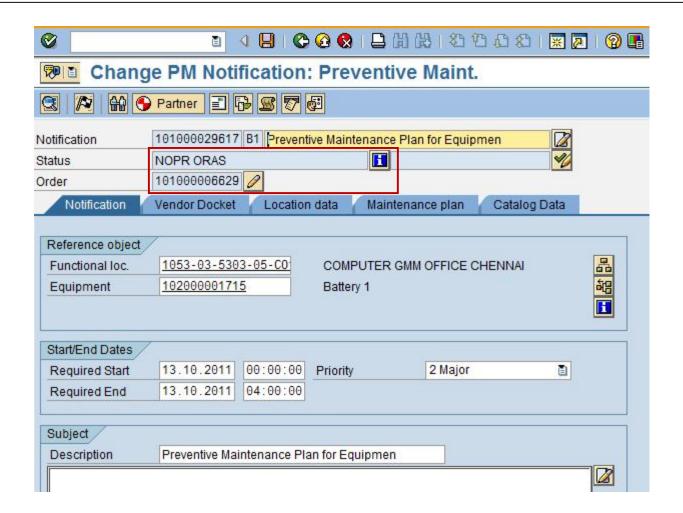


Maintenance Order of Order Type "BM01" created and linked to the Notification. Status of Notification will be updated to "**ORAS**" (Order Assigned)









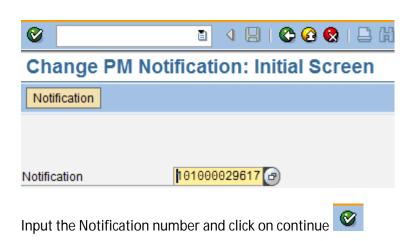




Material Planning Against Maintenance Order

SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing NotificationChange or SAP MenuLogisticsPlant Maintenance Maintenance ProcessingOrderChange				
T Code	Type IW22 / IW32 in Command Field and press				
User Menu	Select corresponding Node for IW22 / Change or IW32 / Change				

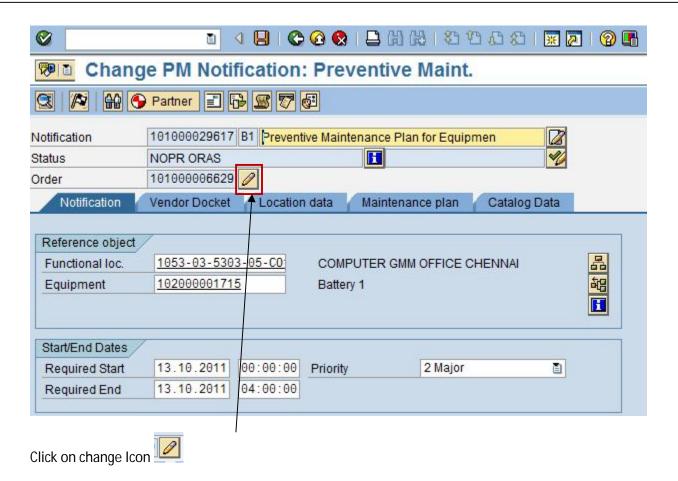
From T code IW22



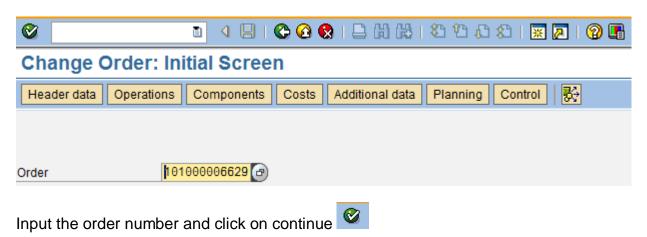








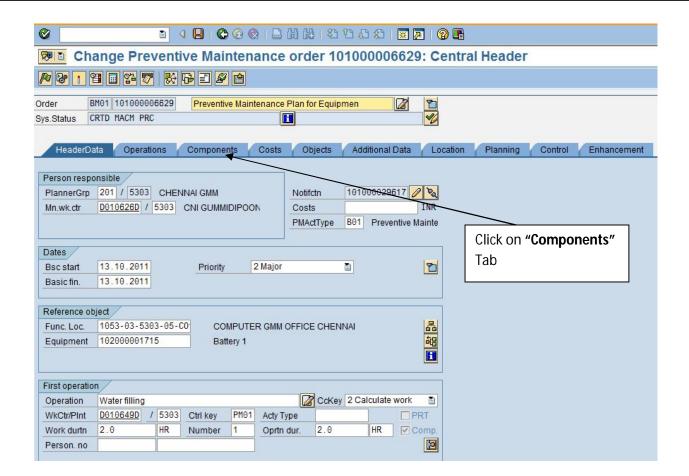
From T code IW32





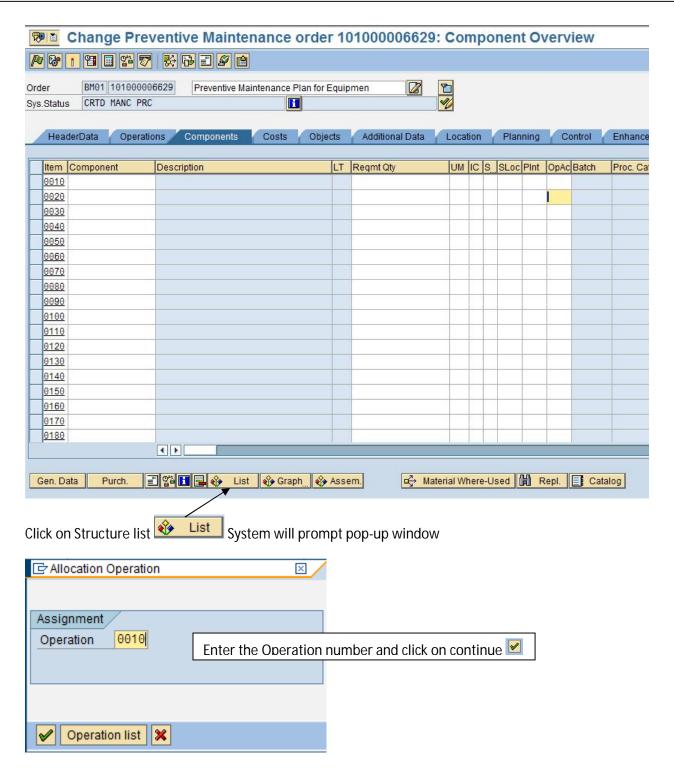












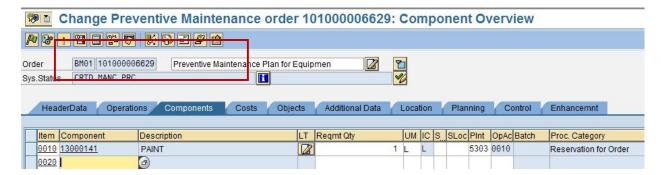
You will get the Materials (As per equipment BOM)list.



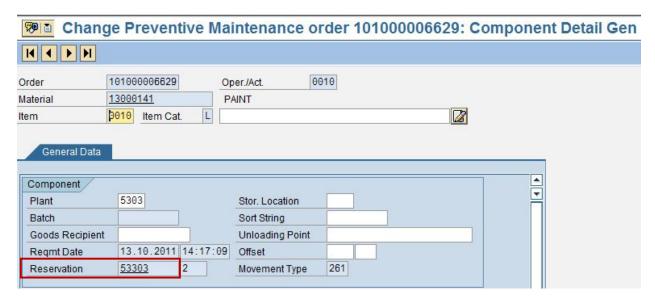




Double click on the Item which you want to input, the selected material will be updated in the "Components" Tab against Item number "0010" as below

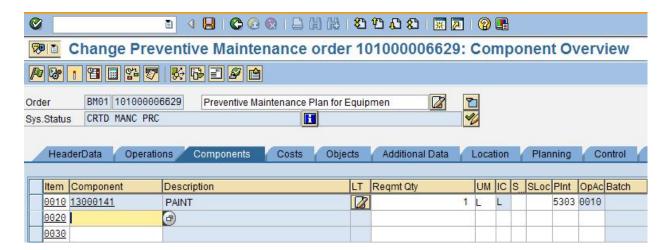


If you want to see the reservation number double click on "0010"

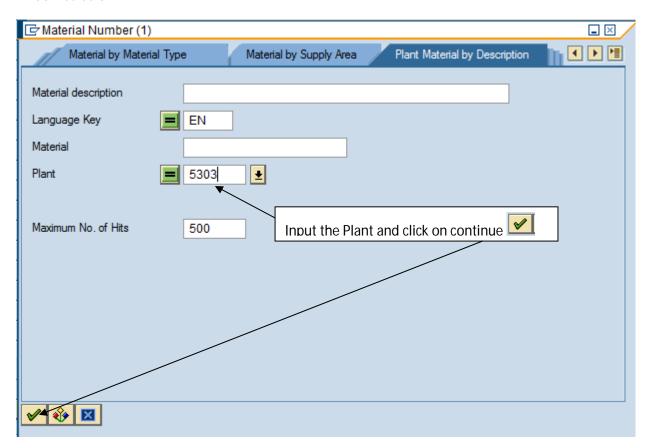








If you want to assign the components other than from the BOM, Place the cursor in "Component" filed and click on or press F4 key (Possible entries) on the keyboard, system will prompt a pop-up window as below

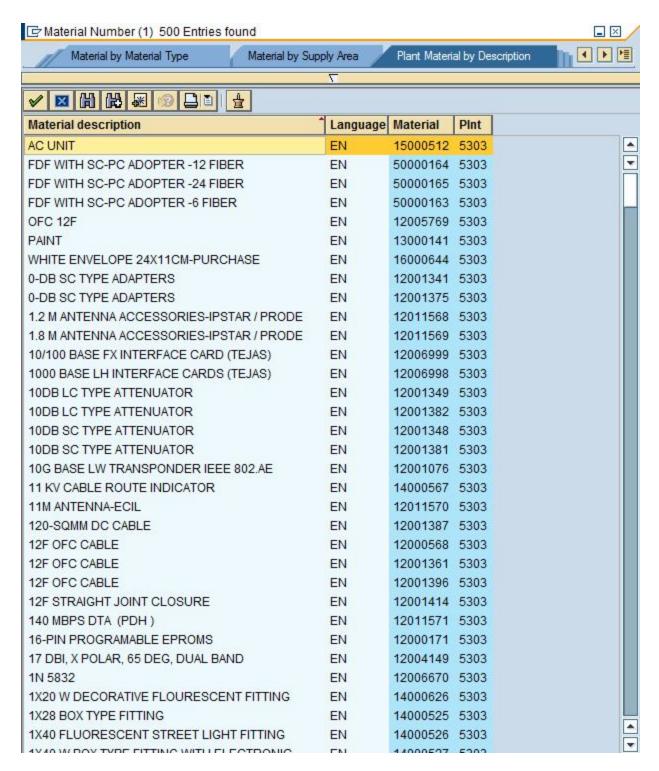


You will get the list of all the materials which are available in the plant 5303







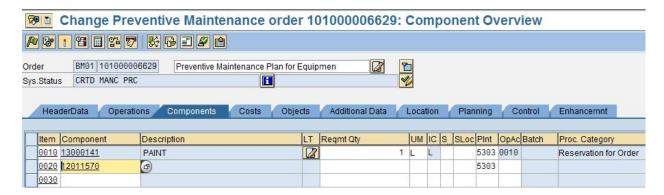


Choose the right material and double click on it, the system will automatically update this material as below

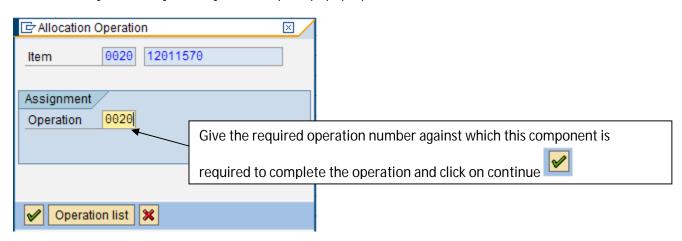


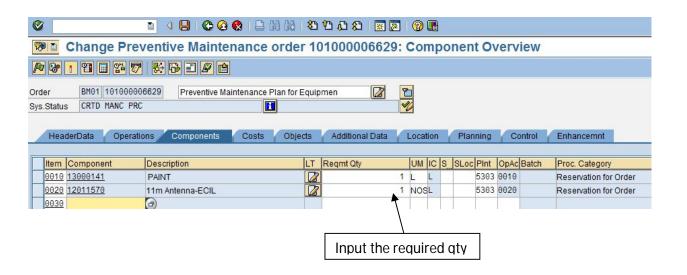






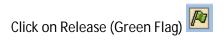
Press Enter key on the keyboard system will prompt pop-up window

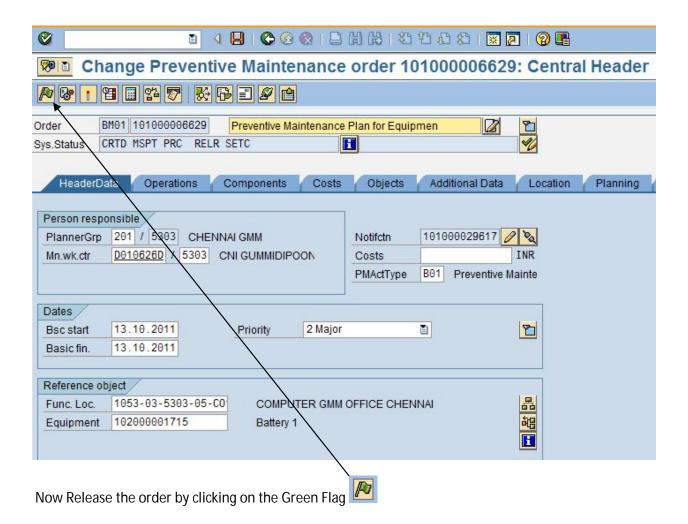






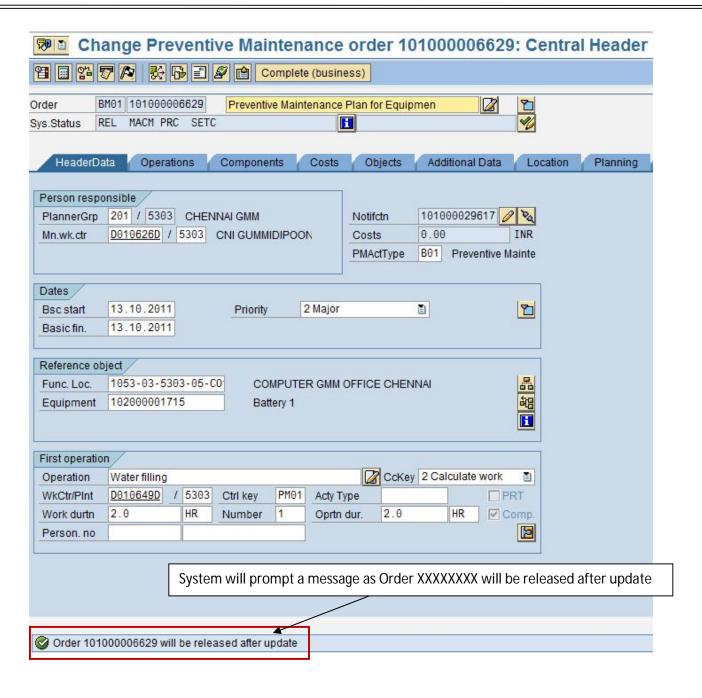












Click on Save

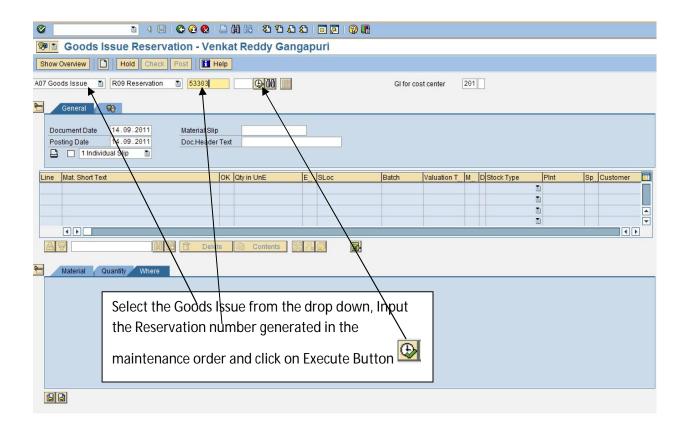






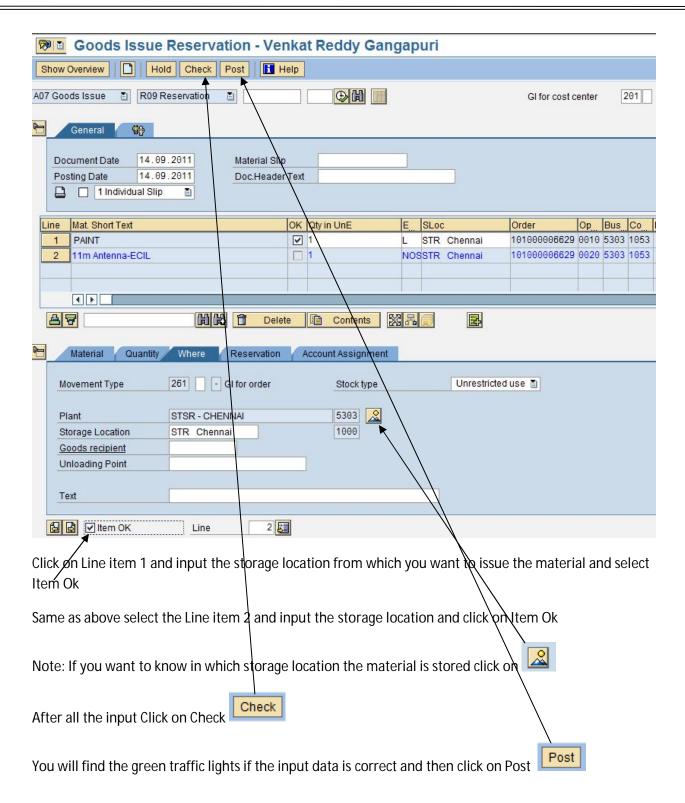
Material Issue against Reservation

SAP Menu	SAP MenuLogisticsMaterials ManagementInventory ManagementGoods Movement				
T Code	Type MIGO in Command Field and press				
User Menu	Select corresponding Node for MIGO / Goods Movement				













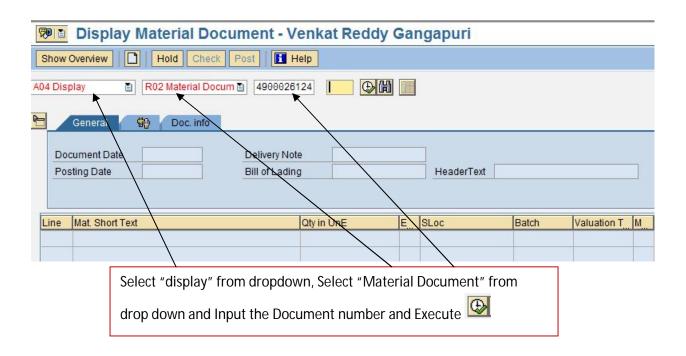
©			2 0 1 2 3 1 3 6 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Enter Go	ods Issue: In	itial Scr	een
New Item	To Reservation	To Order	WM Parameters
D	e [14.09.2011]		D-15- D-1- [44 00 2044]
Document Date Material Slip	14.09.2011		Posting Date 14.09.2011
Doc.Header Te	vt		
	ocument Items		
Movement Typ Plant Storage Local	pe 261 5303 d		Special Stock Reason for Movement Suggest Zero Lines
GR/GI Slip ☐ Print			○ Individual Slip Indiv.Slip w.Inspect.Text Collective Slip
		t a message	as "Document XXXXXXXX posted"
O Document	4900026124 posted		





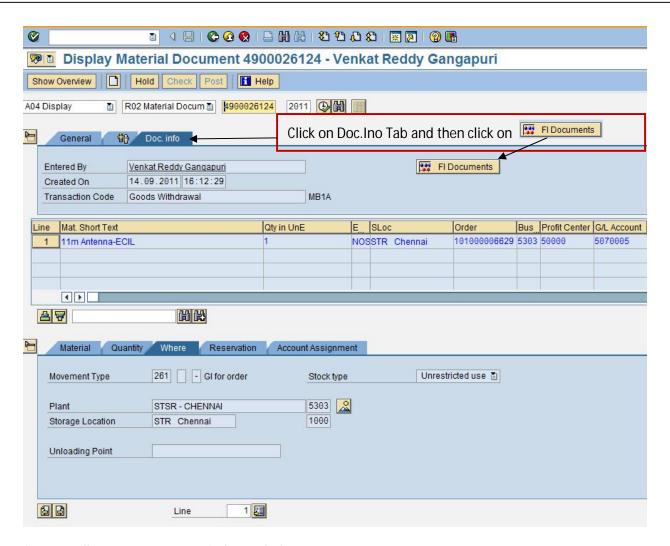
Display material Document

SAP Menu	SAP MenuLogisticsMaterials ManagementInventory ManagementGoods Movement				
T Code	Type MIGO in Command Field and press				
User Menu	Select corresponding Node for MIGO / Goods Movement				

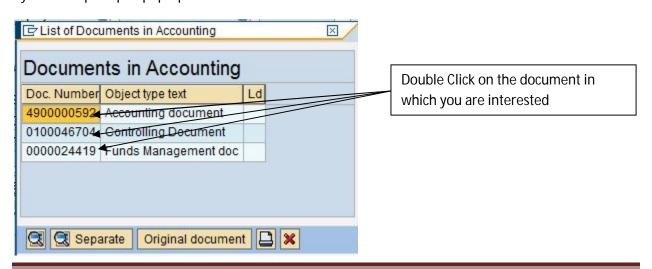








System will prompt a pop-up window as below







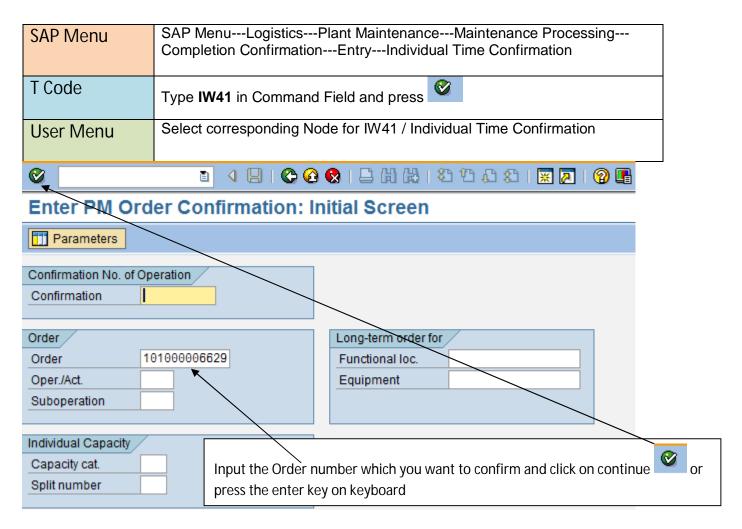
For Example if you double click on the "Accounting Document" screen appears as below



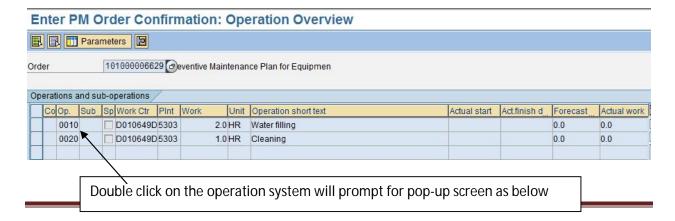




Maintenance Order Confirmation



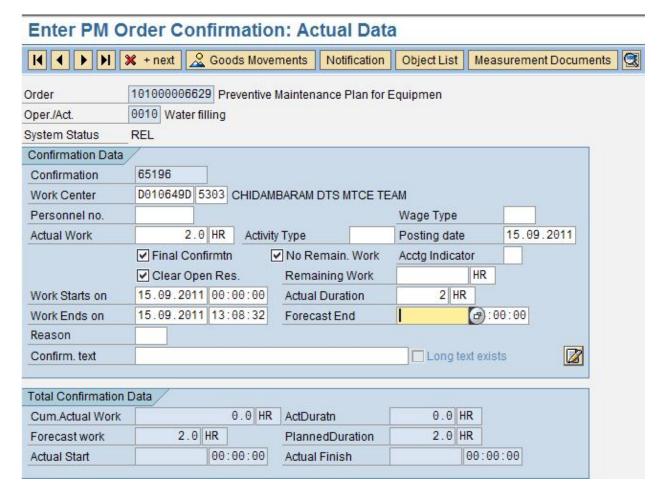
Below screen you will get the list of operation which are yet to be confirmed











Enter all the details like Work Centre, Personnel number, Actual work, Actual duration, Work starts on, Work Ends on, Reason, and Confirmation Text

After all the details are maintained click on







	Q 3 3 3 3 3 3 3 3 3 3
Enter PM Order Confirmation: In	itial Screen
Parameters	
Confirmation No. of Operation Confirmation	
Order 101000006629	Long-term order for Functional loc.
Oper./Act. Suboperation	Equipment
Individual Capacity	
Capacity cat. Split number	
System prompts a message as "Number XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	of confirmations saved for order
Number of confirmations saved for order 1010000	06629: 2
Order status "CNF" is updated	-





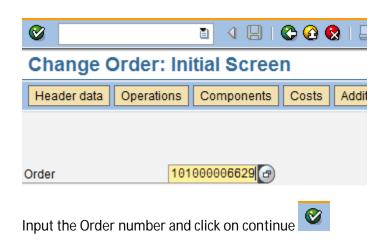


To see the status go to order change (IW32) mode and input the order number and click on continue



Complete Maintenance Order (TECO)

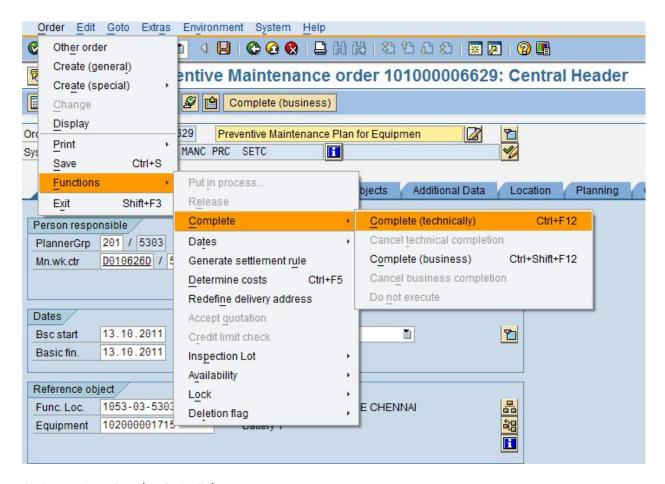
SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing OrderChange				
T Code	Type IW32 in Command Field and press				
User Menu	Select corresponding Node for IW32 / Change				





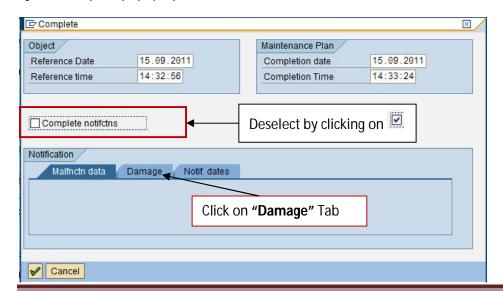






Click on "Complete (Technically)"

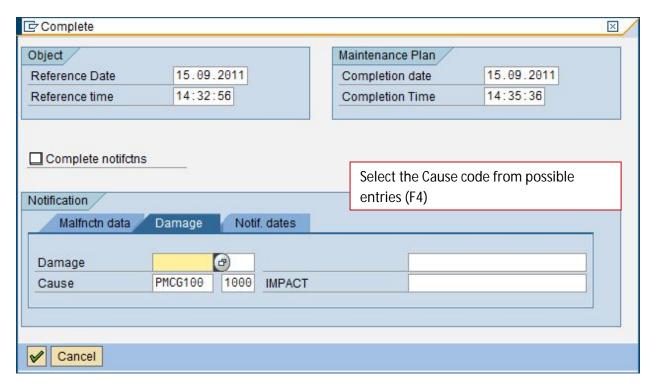
System will prompt pop-up window as below







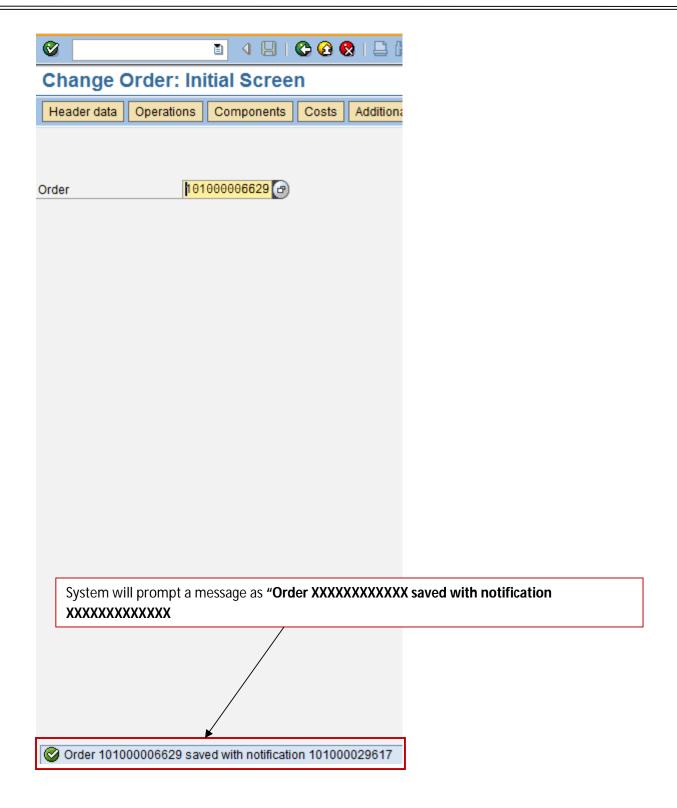




Click on continue





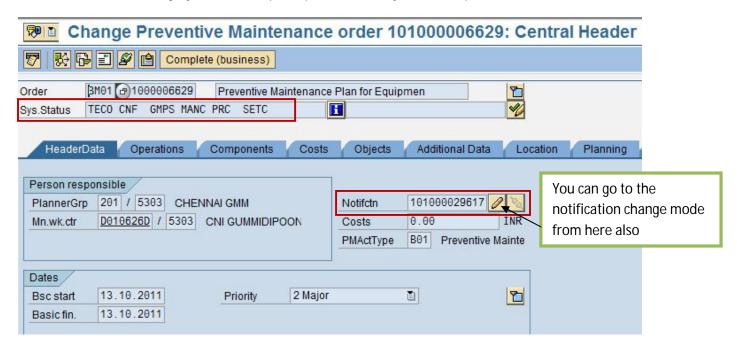






Now again to order change mode through T code IW32

The entire screen will be grayed out (no input is possible) and system will update the status with "TECO"



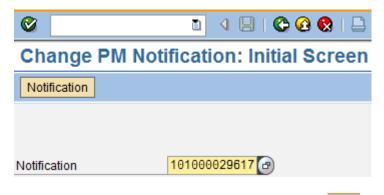
With above status the Maintenance order is completed.





Complete Notification

SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing NotificationChange				
T Code	Type IW22 in Command Field and press				
User Menu	Select corresponding Node for IW22 / Notification Change				

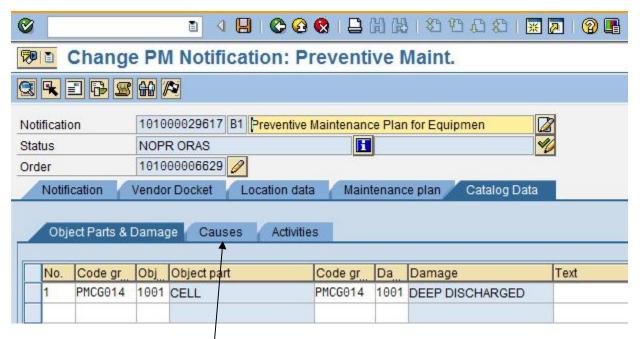


Input the notification Number and click on Continue

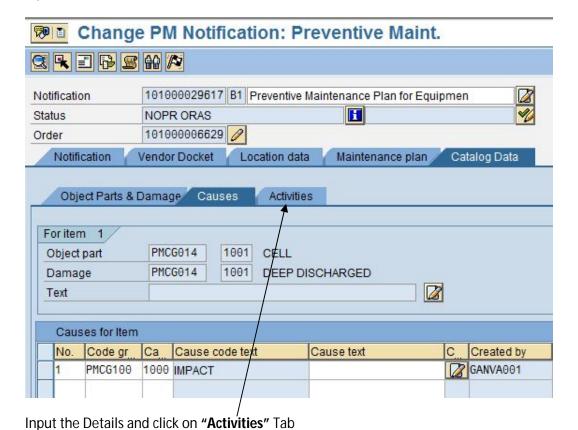






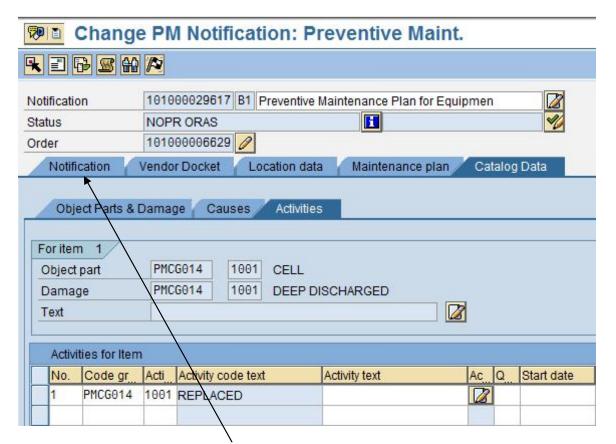


Input the Details and click on "Causes" Tab





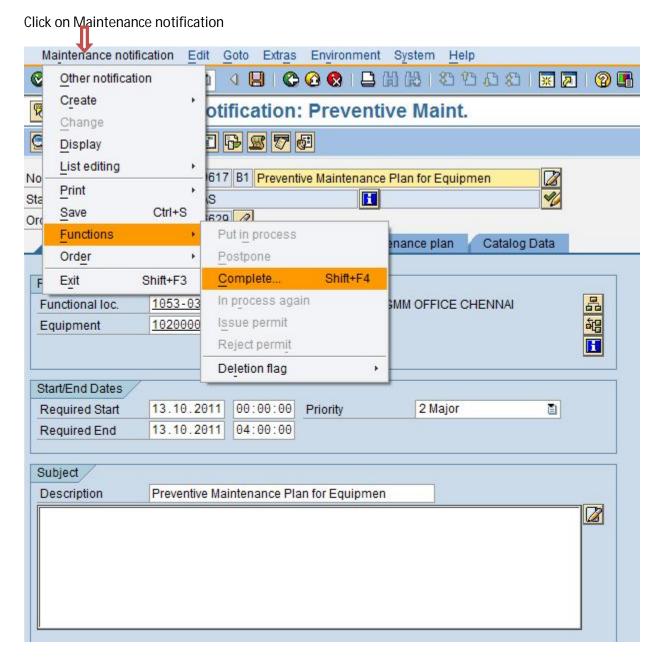




Input the details and click on "Notification" Tab







System will prompt a warning message at the bottom left of the above screen as below



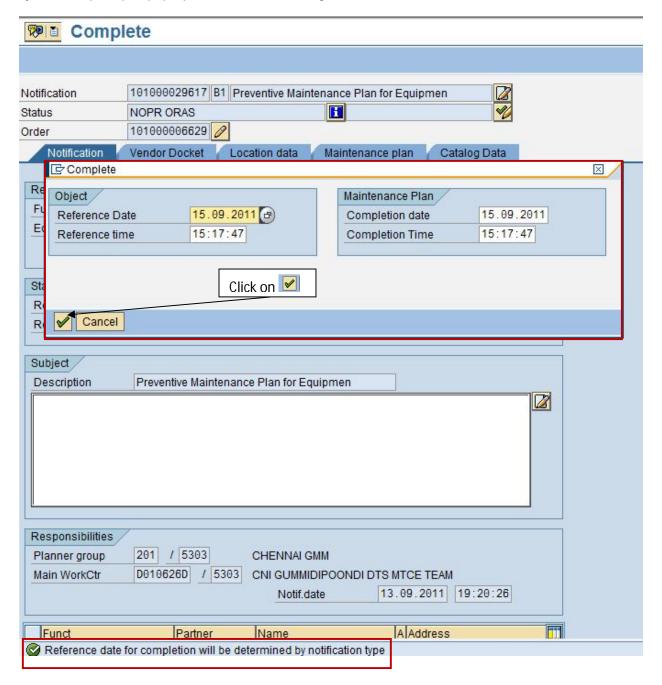






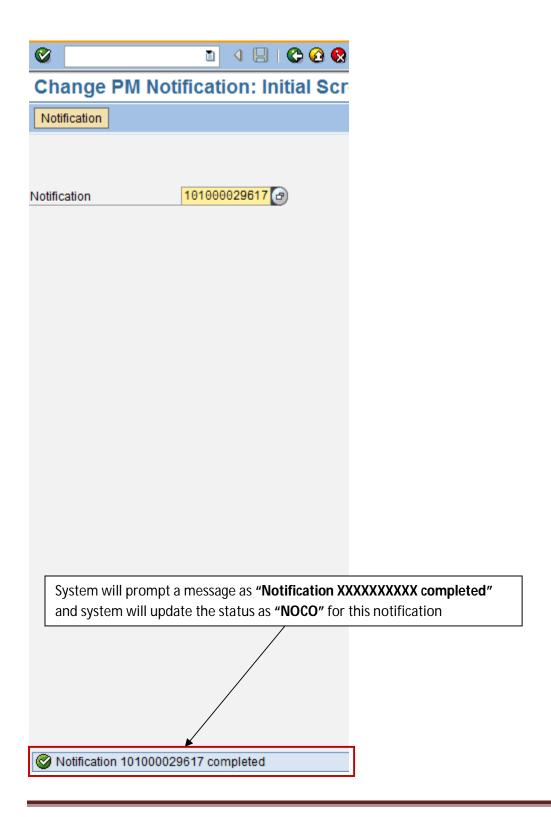
Check the dates and press the "Enter Key" on the keyboard to ignore the above warning message

System will prompt a pop-up window and a message at the bottom left of the screen





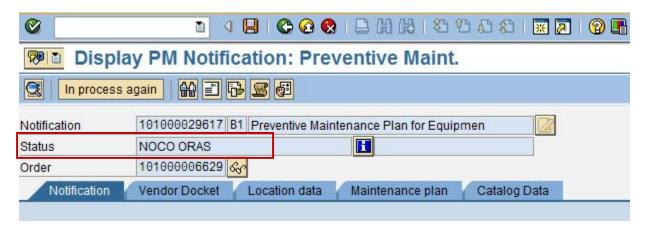








To see the "NOCO" status access the Notification change mode screen through T code IW22



With the above the notification is completed





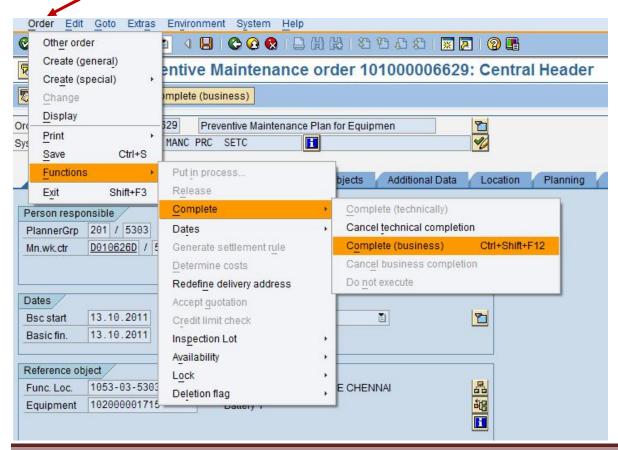
Maintenance Order Settlement

At the month end, finance department will open the orders which are technically completed and Settle them, after the settlement the actual cost of the order will be transferred to the cost centre, And actual cost of the order will become zero. After this activity the order will be Business Completed

Business Completion of Maintenance Order

SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing OrderChange			
T Code	Type IW32 in Command Field and press			
User Menu	Select corresponding Node for IW32 / Order Change			

Click on "Order"





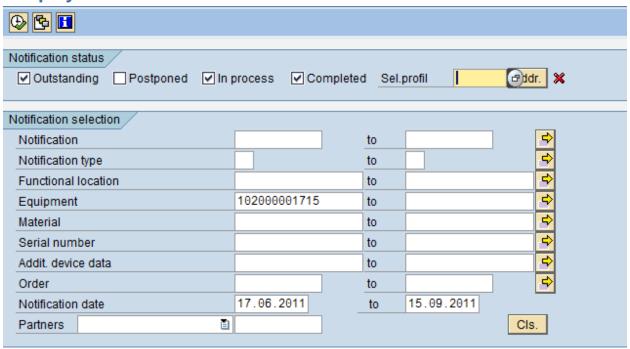




Report for the Equipment for scheduled maintenance have not been done within the schedule

SAP Menu	SAP MenuLogisticsPlant MaintenanceMaintenance Processing NotificationList EditingDisplay
T Code	Type IW29 in Command Field and press
User Menu	Select corresponding Node for IW29 / Display

Display Notifications: Selection of Notifications







Display Notifications: List of Notifications

Q	© ♥ 1 ■ A F F II ■ Notification & E							
	Created on	Maintenance Plan	Equipment	Тур	Notification	SysStatus	Description of functional location	Descriptn
	08.09.2011	101000008087	102000001715	B2	102000026870	OSNO		Battery 1
	14.09.2011	101000008129	102000001715	B1	101000029618	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	08.09.2011	101000008087	102000001715	B2	102000026881	OSNO		Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029619	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	08.09.2011	101000008087	102000001715	B2	102000026882	OSNO		Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029620	OSNO	COMPUTER GMM OFFICE CHENNAI	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029651	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029652	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029653	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029654	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029655	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029656	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029657	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
* 1	14.09.2011	101000008128	102000001715	B1	101000029658	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1
	14.09.2011	101000008128	102000001715	B1	101000029659	OSNO	COMPUTER GMM OFFICE CHENNAL	Battery 1

Note 1: For External Processing of Service, please refer Breakdown Maintenance Manual

Note 2: For PO, RFQ, Contract, SES creation please refer MM User Manuals